

PCPG Newsletter

Communicating Key Information & Concerns
to Geologists and Environmental Professionals

Issue 2 / 2015

BOARD OF DIRECTORS

President

Donald R. Wagner, P.G.
Stevens & Lee, P.C.
drw@stevenslee.com

Immediate Past President

Jennifer L. O'Reilly, P.G.
Groundwater & Environmental Services, Inc.
joreilly@gesonline.com

Permanent Director

Richard E. Wright, P.G.
R. E. Wright, P.G., LLC

Board Members

Dan A. Billman, P.G.
Billman Geologic Consultants, Inc.
danaret@zoominternet.net

Sean Chelius, P.G.
Patriot Environmental Management, LLC
schelius@patriotenviro.com

Brenda Costa, P.G.
Moody & Associates, Inc.
Bcosta@moody-s.com

Barbara Dunst, P.G.
EQT Production
bdunst@eqt.com

Martin F. Helmke, PhD, P.G.
West Chester University of Pennsylvania
MHelmke@wcupa.edu

Valerie Holliday, P.G.
Geologos, LLC
vholliday5@comcast.net

Mark Ios, P.G.
Skelly & Loy, Inc.
mioos@skellyloy.com

Russell Losco, P.G.
Lanchester Soil Consultants, Inc.
soildude@comcast.net

Gary Kribbs, P.G.
AEON Geoscience, Inc.
gkribbs@verizon.net

John Torrence, P.G.
ERM Group, Inc.
john.torrence@erm.com

Richard Wardrop, P.G.
Groundwater & Environmental Services, Inc.
rwardrop@gesonline.com

General Information: info@pcpg.org

INSIDE THIS ISSUE...

President's Message	1
Report on PCPG's Annual Meeting, March 2015	3
PCPG's First Annual Job Fair	4
Government Affairs Committee Update	5
PCPG at the 2015 Brownfields Conference	6
Spring 2015 Science Fairs	7
Student Corner	8

MESSAGE FROM THE PRESIDENT

It was great to see many of you at the annual meeting on March 31st. By many accounts, our first annual job fair was well received and it was wonderful to see the turnout from prospective employers and the students looking for an opportunity to meet them. One of the things that struck me positively at the job fair was the diversity among the geology students in attendance. That got me to reflect on the diversity of our BOD and among our membership. The current BOD is probably the most diverse board I've had the pleasure of serving on and with. I don't just refer to gender diversity, although that is very important to our mission, but also to occupational diversity. The BOD includes both men and women professionals who represent many aspects of the practice of geology and the allied earth sciences – from environmental consulting, remediation and Brownfields redevelopment, to exploration and production of natural resources, including groundwater, oil, gas, coal and minerals, to academia and yes, even to the legal profession. Occupational diversity is one of our greatest strengths and is a reflection of the many vital roles that geologists fulfill in our society and in our economy.

Have a great summer and I hope to see some of you at one of our many educational offerings this year. I welcome your thoughts, feedback and comments on PCPG's vision and mission. Feel free to send me an email (drw@stevenslee.com).

Very truly yours,

Donald R. Wagner, P.G.
PCPG President



REPORT ON PCPG's ANNUAL MEETING - MARCH 2015

Barbara Dunst, P.G. (EQT Production)

PCPG's Annual Membership Meeting was held on the afternoon of March 31, 2015 in Harrisburg at the Holiday Inn East, following PCPG's first Annual Job Fair. The meeting included updates from the PA DCNR and BTGS leadership, as well as the State Licensing Board, plus a technical session, ending with a social gathering complete with music, drinks and food.

After opening remarks, President Don Wagner, P.G. (Stevens & Lee) kicked off the meeting by announcing the student scholarship essay contest winners. The topic was "Why do you want to be a Geologist?" Laura Burns from West Chester University was the runner-up winning \$400 and Margariete Malenda from Kutztown University took first place winning a \$1,000 prize.

Cindy Dunn, then Acting Secretary of PA DCNR provided a summary of the Bureau's recent activities and plans for the coming year. One of DCNR's initiatives for 2015 is to upgrade several online databases, such as the PA Mapping program, for easier input and public access. The DCNR is also developing a white paper on alternative energy and along with Penn State, will invest in an array that will monitor seismic data across the state. The State Parks are promoting outdoor recreation events to include hikes and geology walks. A forestry initiative will be marketing PA hardwoods as a sustainable product with value added jobs for the economy.

Now retired, State Geologist George Love provided additional specifics on some of the PAGS initiatives. The state has an accumulation of over 100,000 groundwater well records and a grant from the USGS for data preservation. The goal is to store the well information in the PAGWIS and WEBDRILLER systems. PA IRIS and WIS are over 20 years old and an upgrade is long overdue. The improved cloud-based database will be more user-friendly, with mapping capabilities, and extra compatibility with other systems. PA's seismic initiative has added over 20 seismographs across the state to monitor activity and build a scientific database to assist with citizens' complaints. The directory of non-fuel minerals is being updated and should be useful for the public and other businesses for locating aggregate for various uses. The Geologic Survey has a vast collection of rock cores. With funding from the USGS data preservation grant, the rock cores will be photographed, described and the information put online. The Education Series is also scheduled for an overhaul in order to further encourage young students to explore geology as a career. A shortage of geologists is projected for 2022 and Mr. Love emphasized the need for fellow geologists to get into a classroom to share their enthusiasm for the profession.

A discussion panel addressed the topic: *Geology Career Paths: How Did I Get Here and What Have I learned Along the Way?*; a particularly relevant subject for the younger geologists in the audience who had attended the Job Fair earlier in the morning. Panel members were Karen Rose Cercone, PhD (Indiana University of PA) Barbara Dunst, P.G. (EQT Production) and Don Wagner, P.G. (Stevens & Lee), with Dan Billman, P.G. (Billman Geologic Consultants, Inc.) as moderator. The panel provided insight on the benefits of a good basic geologic education, and explained why a solid geologic framework is important when switching jobs due to career moves, family obligations or even economic downturns.



PCPG President Don Wagner, State Geologist George Love and DCNR Acting Secretary Cindy Dunn at the March 2015 PCPG Annual Meeting



PCPG Essay Contest runner-up Laura Burns (left) and first place winner Margariete Malenda (right)

Continued on Page 3

ANNUAL MEETING *Continued from Page 2*

Following the panel, Ted Tesler, P.G. with the State Licensing Board explained the purpose of P.G. licensure: to provide an assurance to the public that a geologist has the minimum knowledge and experience to assume responsible charge of geologic work. There are three fundamental pillars the Licensing Board looks for in candidates: education, experience and examination. Among the numerous courses taken for the education requirements for licensure, the Licensing Board believes the two essential courses are Structure and Field Methods. Mr. Tesler stressed that routine sampling, calculations and field work per se do not count toward the five-year experience requirement. A candidate must show that they know how to apply the field data and have actual experience in interpreting geology and applying geologic principles and those credentials must be reflected in the P.G. application materials.

Robert DiFillippo, P.G. (Aquaterra Technologies) rounded out the technical program with a fascinating presentation entitled “Rural Water Supply Development, Apatut Barangay, La Union Province, Luzon, Philippines.” Apatut is a small farming community of approximately 750 residents, located about 200 miles northwest of Manila. The community relies on rice crops, but lacks reliable water access. This “Water for Life Project” was sponsored by the Engineers Without Borders organization, with the goal of providing clean water for the community and its school. The local aquifer is a tight sandstone located 120-130 meters above a saltwater intrusion zone. A 35-meter deep well was drilled during the dry season, under challenging conditions. Electricity was installed at the surface along with a 5 hp. submersible pump, 21,000-gallon tank, and a chlorination system. The well currently produces about 35 gpm. Water is gravity-fed from the tank at the top of the hill to four tap stands; three for the community and one for the school. Sustainability measurements were established to gauge the success of the project which included health surveys along with water quantity and quality analysis. Anyone interested in a multi-disciplinary hydro-philanthropy project with a healthy dose of social work can contact Mr. DiFillippo at rmd@aquaterra-tech.com.



Karen Rose Cercone, Barbara Dunst and Don Wagner sharing laughs and stories about geology career paths past and present



A gathering of past PCPG presidents (left to right): Jennifer O'Reilly, Paul Nachlas, Rick Wardrop, Grover Emrich, Gary Kribbs, Rich Hazenstab, and Jim LaRegina.

The program ended with special give-aways. BTGS donated four copies of the *Geology of PA* as door prizes for some of the students in attendance. Member door prizes included gift certificates to Bass Pro Shop, Applebee's, and The Olive Garden generously donated by Eichelbergers, Inc., plus a bottle of Champagne and a bottle tap appropriately made from a piece of granite! A networking session, complete with drinks and snacks and musical entertainment by The Jazz Assassins rounded out the day.



Geologists deciding whether to start with dessert, at the PCPG Annual Meeting luncheon.

PCPG's FIRST ANNUAL JOB FAIR – MARCH 31, 2015

Martin Helmke, PhD, P.G. (West Chester University)

The job fair hosted by PCPG during the March 31 membership meeting in Harrisburg was a remarkable success. Eight geoscience employers participated, including Advantage Engineers, ERM, Pennsylvania Department of Environmental Protection, RETTEW, Seismic Surveys, Skelly & Loy, Quantum Geophysics, and Zephyr Environmental. Over 88 prospective employees attended, many of whom were students from at least 14 academic institutions. We received a great deal of positive feedback indicating that the employers collected stacks of high quality resumes and job seekers were professional and well-prepared. We want to thank the employers, prospective employees, and PCPG members for making this such a positive networking event. We look forward to hosting a second job fair next spring.

If you are a company who would like to participate in future job fairs, please e-mail info@PCPG.org.



Kutztown University was well represented at PCPG's student job fair and annual meeting. From left to right: Kaitlin Lento, Holly St. Clair, Amanda Nowicki, Margariete Malenda, Alana Kopicz, Natalie Dowdy, Kyle Yarmush, Emily Snyder, Sean Burns, and Chris Mayer. Kutztown University Professor Kurt Friehef PhD, P.G., in front.



A busy crowd of students and prospective employers at the Job Fair, 2015 (photo credit: Rich Hazenstab)

PCPG's GOVERNMENT AFFAIRS COMMITTEE (GAC) UPDATE

Mark Ios, P.G. (Skelly & Loy)

The GAC follows legislative action in both the House and Senate. The following bills of interest to geologists are being tracked. A more inclusive list of current bills is included on PCPG's website, under Government Affairs, and clicking on "Members-Only content".

House

- **Environmental Resources & Energy committee**

HB 81 - Water Well Construction Standards; proposed legislation submitted on January 21, 2015.

- **Professional Licensure committee**

HB 92 – Granting State Licensing Boards the Power to Expunge Technical Violations; legislation submitted on January 21, 2015, Approved by Committee vote on April 1, 2015; Passed House vote on April 21, 2015 (194-0); Referred to Consumer Protection and Professional Licensure committee in the Senate on May 1, 2015.

HB 209 – Requiring all licensees to report convictions within 30-days; legislation submitted on January 23, 2015; Passed House vote on February 25, 2015 (198-0); Referred to Consumer Protection and Professional Licensure committee in the Senate on February 27, 2015.

- **Consumer Affairs committee**

HB 48 – Water Well Construction Standards; proposed legislation submitted on January 21, 2015, Public hearing was held on May 12, 2015.

Senate

- **Environmental Resources & Energy committee**

SB 653 - Water Well Construction & Decommissioning Standards; legislation submitted on March 23, 2015.

- **Consumer Protection and Professional Licensure committee**

SB 845 – Licensure of Soil Scientists; proposed legislation submitted on May 20, 2015.

SB 538 – Strengthening Licensee Reporting Requirements and Suspensions; legislation submitted on February 25, 2015; Approved by Committee vote on May 12, 2015.

PCPG Provides Testimony on House Bill 48

Based upon a request received from the House Consumer Affairs committee, the PCPG submitted written comments and provided verbal testimony at a hearing for House Bill 48 (Water Well Construction Standards) on May 12, 2015. PCPG GAC members Mark Ios, Joe McNally, and Paul White were present to provide testimony. We sat as a group at the testimony table and were the only organization to have a multiple person presence.

Before the hearing, we met with Bill Reichart (representing the Pennsylvania Ground Water Association). Bill was optimistic that the House of Representatives was entertaining consideration of HB 48 early in the current legislation. We also had the opportunity before the hearing to talk with Representative Robert W. Godshall, the Chairman of the House Consumer Affairs Committee. As it turns out, Representative Godshall has a vacation trailer in Tioga County that relies upon a private well for its water supply. The well exhibited water quality problems (total and fecal coliforms) and still does not meet the NGWA recommended construction standards (due to the lack of a grout seal around the casing). Representative Godshall was pushing for the committee to approve HB 48, based upon his own personal experience with poor well construction practices.

Continued on Page 9



UPCOMING EVENTS

June 25, 2015

Fracture Trace Analysis in a Digital Age
Red Lion Hotel Harrisburg East, Harrisburg, PA

July 16, 2015

Fracture Trace Analysis in a Digital Age
Red Lion Hotel Harrisburg East, Harrisburg, PA

July 23, 2015

Hydrogeology for the Consulting Geologist
PSU Great Valley, Malvern, PA

July 28, 2015

Geologists in Conflict: Overcoming Human Nature
and Sticking to the Science
Crowne Plaza Philadelphia, King of Prussia, PA

August 4-5, 2015

PG Review Course for the Practicing Geologist
and ASBOG Exam Candidate
Doubletree Suites, Plymouth Meeting, PA

August 12, 2015

Old Ideas Don't Float: The Current Practice of
LNAPL Investigation and Remediation
Red Lion Hotel Harrisburg East, Harrisburg, PA

August 19, 2015

A View from the Basement: Lineaments, Fractures
and CSDs Cross-cutting Pennsylvania
Regional Learning Alliance, Cranberry Twp., PA

September 2, 2015

Hydrogeology for the Consulting Geologist
Comfort Inn East, Monroeville, PA

September 17, 2015

Geophysical Methods for Effectively Mapping
Bedrock Fractures and Other Subsurface Conditions in
Urbanized Environments
Regional Learning Alliance, Cranberry Twp., PA

*Don't forget to check the "Courses &
Events" calendar on PCPG's [home page](http://pcpg.org)
frequently for up to date information on
upcoming educational opportunities.*

PCPG AT THE 2015 BROWNFIELDS CONFERENCE

Brenda Costa, P.G. (Moody Associates)

The 2015 Brownfields Conference in Erie, Pennsylvania, took place on May 13-15, and PCPG was there to convey our message. The event was co-hosted by The Engineer's Society of Western Pennsylvania and the Pennsylvania Department of Environmental Protection. The conference highlighted the 20th anniversary of Act 2 (the Land Recycling Program) and the revitalization of the historically industrial Erie lakefront. This marked the first time the event was held in Erie. Over 270 attendees from more than 120 companies and organizations took part in seminars and networking events. Thirty-three exhibitors were framed by the beautiful waterfront views from the Bayfront Convention Center, and all were treated to a sail-by of the U.S. Brig Niagara, a replica flagship. Additional events included a bus tour of Erie Brownfields projects and a walking tour of the Presque Isle Bayfront projects. Brenda Costa, P.G., and Jennifer O'Reilly P.G. ably represented our organization, providing valuable information and great PCPG "swag" at the PCPG booth.

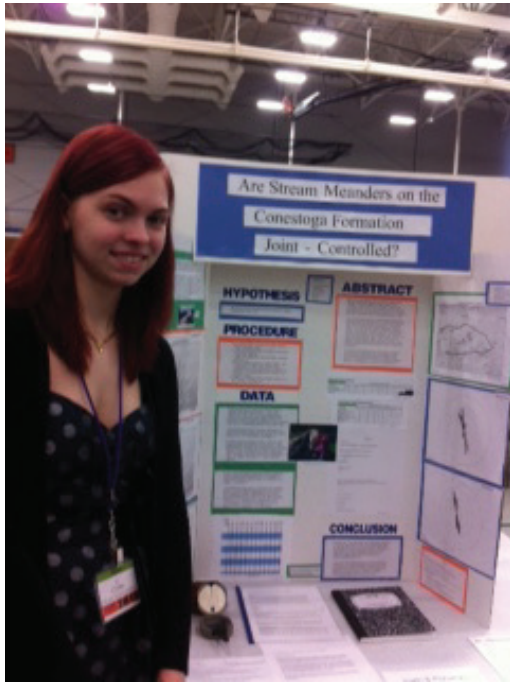


Brenda Costa, P.G., of Moody Associates, at the PCPG booth, backed by the Bicentennial Tower and the Lake Erie waterfront.

PCPG MEMBERS ASSIST WITH JUDGING AT TWO PENNSYLVANIA SPRING 2015 SCIENCE FAIRS

This past spring, PCPG members gave generously of their time to review project entries and select winners (each of whom received a cash award from PCPG) at two science fairs:

The North Museum Science & Engineering Fair, held at Franklin & Marshall College, Lancaster PA (Formerly Lancaster County S&E Fair) on March 25, 2015 (<http://www.northmuseum.org/ScienceFair>)



Claire Moltoris of Penn Manor High School and her award-winning project, at the North Museum Science and Engineering Fair.

Jay Parrish, PhD, P.G. (Jay Parrish LLC) served as a volunteer judge and chose the following winners:

Samantha Machin
"How Waves Travel Through Different Soils"
Warwick High School (11th Grade)
\$250 award

Claire Moltoris
"Are Stream Meanders on the Conestoga Formation Joint-Controlled?"
Penn Manor High School (11th Grade)
\$250 award

The Delaware Valley Science Fair, held at the Greater Philadelphia Expo Center on April 1, 2015 (<http://www.drexel.edu/dvsf/>)

Judging for the PCPG award was conducted by David Side, John Mihalich, Grover Emrich and Gary Kribbs, who selected:

Michaela Lozada
"Comparison of the Chemical Contents in Modern to Cretaceous Era Shark Teeth"
Marine Academy of Tech/Environmental Science (10th Grade)
\$500 award



Congratulations to the winners! And many thanks to our PCPG member judges for their time and enthusiasm promoting earth science and PCPG.

A very busy Delaware Valley Science Fair, April 2015.



STUDENT CORNER

Martin F. Helmke, Ph.D., P.G., West Chester University of Pennsylvania

Welcome to the *Student Corner*, a forum for information exchange between students and geologic professionals across the Commonwealth.

Congratulations to all recent or soon-to-be graduates in the geosciences! I'm sure many of you are off to graduate school, already have a job lined up, or just want to take a few months of well-deserved R & R. But for those actively seeking employment, here are a few job hunting tips for 2015.

Employment prospects for geology graduates are excellent this year. However, earning a college degree doesn't guarantee employment. Entering the workforce requires strategy, hard work, and patience. To increase the chance of success one should consider the full spectrum of geoscience employment opportunities. The American Geosciences Institute (AGI, 2014) reports that last year's geoscience graduates were employed by petroleum companies, environmental firms, universities, government agencies, research institutes, mines, construction firms, and high schools. Although the price of oil has dropped somewhat, petroleum companies are still seeking qualified entry-level geologists. The environmental industry is strong; more than 50 percent of geologist job postings advertise positions with environmental or engineering firms. A pleasant surprise this year is the number of openings in federal, state, and local government agencies. These highly-coveted positions are becoming available as the "Baby Boomer" generation retires. Mining and exploration companies are hiring while the price of metals and other earth materials remains strong. Much of this work is conducted abroad for those who enjoy travel. Universities are actively hiring faculty as geology programs grow to accommodate increasing market demands. Geologists are being hired by construction firms to develop and repair infrastructure. High schools are seeking teachers certified in earth and space science education as schools emphasize the STEM disciplines. So think outside the box and cast a broad net as you apply for positions.

A pleasant surprise this year is the number of openings in federal, state, and local government agencies.

Each company, agency, or firm has a different process of "getting in the door". Most larger organizations utilize an online application management system. I had an opportunity to meet with two recruiters from a large international engineering firm last month who shared their perspective on the hiring process for geologists. First off, the resume (albeit an electronic version) is still the primary tool for candidate screening. It should be detailed, concise, and customized to emphasize experience, certifications, and skills pertinent to the position. You should also maintain a professional internet presence using a social media platform such as LinkedIn. Larger firms manage databases that may hold 1,000s of resumes, so the competition is significant. The objective is to provide key words and skills that will make your resume stand out. Keep in mind that the first person reviewing your resume may not be a geologist. If you apply for multiple positions, you should maintain a record of your applications so you will be prepared to respond if they contact you months later. You should be patient. A company may select you as a candidate many months after your application has been submitted.

As discussed in previous *Student Corner* articles, networking is important for both job seekers and seasoned professionals. By reaching out to alumni and making contacts through professional organizations, prospective employees can get their resumes moved to the top of the stack or forwarded to someone with an opening. So be proactive, professional, organized, and patient as you pursue your career. And please let us know when you land your dream job so we can share your employment tips and tricks with the next generation of geoscientists.

Please submit suggestions or questions regarding students and geology to Dr. Helmke at mhelmke@wcupa.edu.

GAC UPDATE *Continued from Page 5*

Potential Renewal Fee Increase

At its March 12, 2015 meeting, the State Registration Board for Professional Engineers, Land Surveyors and Geologists (Board) voted, to increase biennial renewal fees for professional engineers, land surveyors, and geologists from \$50 to \$100. The purpose of the increase is to cover operating expenses through at least the 2021-2023 biennial renewal period. It is anticipated that the increased biennial renewal fees will be implemented with the September 30, 2017, biennial renewal. Please see the following link to review the notice published in the Pennsylvania Bulletin ([Renewal Notice](#)).

PCPG members' written comments were submitted to the State Registration Board by the GAC in advance of the June 15 deadline.

For a more comprehensive report on legislation being monitored by PCPG, members are invited to visit the member's-only GAC page found [HERE](#).

Please contact GAC Chair Mark Iloos at miloos@skellyloy.com with any corrections, comments, or questions.

OTHER EVENTS: OCTOBER 8-10, 2015

80TH ANNUAL FIELD CONFERENCE OF PENNSYLVANIA GEOLOGISTS
POTTSVILLE, PA | [WWW.FCOPG.ORG](http://www.fcopg.org)

BIENNIAL LICENSE RENEWAL DUE SEPTEMBER 30

The Engineer, Land Surveyor and Geologist Registration Law requires that each licensee complete 24 PDHs of professional competency activities during the preceding biennial period (October 1, 2013 to September 30, 2015) as a pre-requisite for renewal. The next renewal deadline is September 30.

Don't wait until it's too late! A total of 11 full and half-day PCPG opportunities are planned between now and September 30 on the subjects of LNAPL, hydrogeology, fractured bedrock, conflict resolution, and geophysical methods, among others. All will be eligible for continuing education credit.

Visit PCPG's event calendar on the home page at www.pcp.org.

LEGGETTE, BRASHEARS & GRAHAM, INC. Professional Groundwater & Environmental Services



- Groundwater / Surface Water Supply Assessments & Permitting
- Geophysics & Downhole TV Surveys
- Vapor Intrusion & Indoor Air Evaluations
- Well Design & Rehabilitation
- Soil & Water Remedial Investigations
- Land Use Impact Studies

- Pre- and Post-Drilling/Fracing Sampling
- Geochemical Analysis/Fingerprinting
- Spill/Release Response & Remediation
- Permitting & Environmental Compliance
- Locating Water Supply Sources
- Groundwater Modeling

West Chester, PA Office

William Avery

email: wavery@lbgpa.com | (p) 610.430.7764

Pittsburgh, PA Office

Greg Ayres

email: gayres@lbgpa.com | (p) 412.928.2061

Offices Nationwide | www.lbgweb.com

PCPG's ASSOCIATE MEMBERS FOR 2015:

Allegheny Utility Solutions LLC
Contact: Josh McConnell (717) 585-4186



Eichelbergers, Inc.
Contact: Ted Gayman (717) 766-4800



Hi-Tech Soil Stabilization LLC
Contact: Desiree Sunday (717) 664-4006



DEADLINE FOR OUR NEXT NEWSLETTER IS AUGUST 21, 2015

For more information, contact our PCPG Newsletter Editor and Communications Committee Chairperson - Valerie Holliday, P.G., by **Email** or telephone at 610-517-7898.

2015 PCPG NON-MEMBER

AD RATES

(Rates are listed as amount per issue)

Size	Commitment:	1x	4x
1/2 Page		\$300	\$240
1/4 Page		\$185	\$150
Business Card (H or V)		\$100	\$80

2015 PCPG MEMBER

AD RATES

(Rates are listed as amount per issue)

Size	Commitment:	1x	4x
1/2 Page		\$225	\$150
1/4 Page		\$140	\$95
Business Card (H or V)		\$75	\$50

**ADVERTISERS: Please remit payment to
PCPG, 116 Forest Drive, Camp Hill, PA 17011**

State Geologist George Love has officially retired as of May 29, 2015, and Gale Blackmer has been appointed Acting Director of the BTGS. PCPG is grateful for Mr. Love's many contributions both to our organization as well as to the practice of geology throughout the Commonwealth, and we wish him all the best.

DON'T FORGET TO CONTRIBUTE TO THE PA GEOPAC!

Through PA GEOPAC, the official political action committee (PAC) of PCPG, you have an effective way to lend financial support to candidates and legislators who support the legislative goals of our organization, or who are willing to lend an ear to our members. More than 200 trade and professional organizations in the state have formed PACs including doctors, dentists, lawyers, bankers, and builders.

Your donation will help to strengthen our voice when and where it is needed most...right now at the state Capitol, where decisions are being made regarding many topics that affect the business of geology in Pennsylvania.

Mail your check made payable to GEOPAC:

GEOPAC

116 Forest Drive, Camp Hill, PA 17011

Contributions may be made by personal check or company check only if from a sole proprietorship or partnership. Otherwise, no corporate or business checks may be accepted.



Please consider the environment before printing this newsletter.